

# Mycotoxin prevalence study in home mixing pig breeding herds in the Netherlands

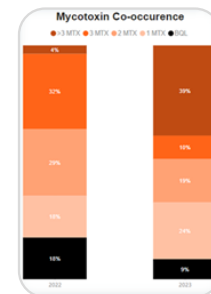
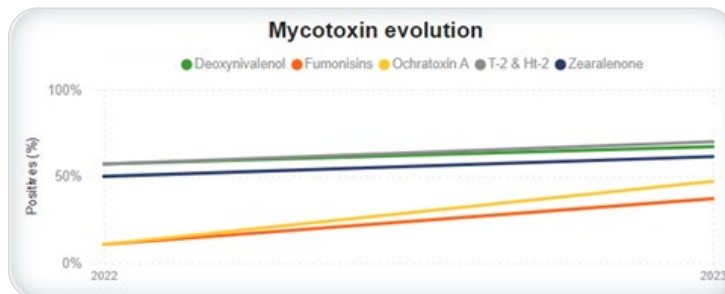
Mycotoxins are chemical, toxic compounds produced by moulds present on feeds and their raw materials. Pigs are susceptible to quite a large range of mycotoxins such as deoxynivalenol (DON), zearalenone (ZEA), T-2 and fumonisins (FUM), less for ochratoxin (OTA) or aflatoxin. Clinical mycotoxicosis is less prevalent nowadays due to efficient screening and control, however subclinical effects are of utmost importance as they are negatively impacting pig health and performance. To assess the importance of subclinical mycotoxicosis in breeding herds, a mycotoxin prevalence study was conducted.

## SET-UP

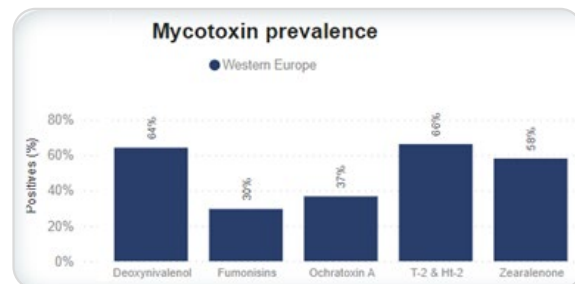
The study was performed for 1 year (September 2022 to August 2023) on 6 Dutch pig breeding herds. To have a representation of the situation, 3 herds without any sign that could indicate mycotoxin presence and 3 others suspected of mycotoxin presence were selected. Suspicion for mycotoxin contamination was raised if management was not optimal or clinical symptoms were appearing periodically such as necrotic tails, an indication for T-2 presence. Gestation, lactation, and piglet starter feeds of each herd were sampled every quarter and analyzed for FUM, OTA, T-2/HT-2, DON, and ZEA by LC-MS/MS.

## RESULTS

A total of 98 samples were evaluated. There was no difference in DON, ZEA, OTA and FUM prevalence among farms. Across all samples, 64% of samples were positive for DON, 66% for T-2/HT-2, 58% for ZEA, 37% for OTA, and 30% for FUM. 66% of samples were contaminated with 2 or more mycotoxins. 10% of samples exceeded the risk level for DON. 10% exceeded the risk level for ZEA. 0 samples exceeded risk levels for FUM or OTA. The 2 farms reporting necrotic tails showed T-2 / HT-2 contamination levels up to 140 ppb. Mycotoxin prevalence showed a seasonal pattern, with the highest contaminations in summer 2023, especially for FUM.



Mycotoxin	Number of samples	Average level	Maximum level
Deoxynivalenol	98	212,63	1374
Fumonisin	98	215,93	2030
Ochratoxin A	98	85,78	950
T-2 & Ht-2 toxin	98	456,05	1430
Zearalenone	98	134,83	922



## CONCLUSION

In this study, subclinical mycotoxicosis due to ZEA and DON is present quite often, as all farms reported one or more feeds exceeding the risk level without clinical symptoms. The appearance of necrotic tails could be linked to higher HT/T-2 levels. Today, there are no EU guidance levels for T-2 available in pig feeds, only indicative levels for the sum of T-2 and HT-2 toxins in cereals and cereal products for compound feed. This study indicates that although no guidance levels are available, the presence of T-2/HT-2 should not be neglected in pig feed.

Read more:

[info.kemin.com/veterinary-nutritionals/blog/mycotoxin-management-pigs](https://info.kemin.com/veterinary-nutritionals/blog/mycotoxin-management-pigs)

